

## EAST Search History

S61	383	(touch near3 (panel or pad or window or screen)) with (pen or stylus) same ((input or sens\$3) near3 signal)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/08/02 13:41
S62	1636	(345/157).CCLS.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2007/02/05 13:10
S64	400	touch near3(pad or screen) S62	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:11
S65	7646	touch near3(pad or screen) same pen	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:12
S66	74	S62 S65	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:11
S67	12707	(touch near3 (pad or screen)) same (pen or stylus)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:52
S68	115	S62 S67	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:13
S69	305031	(zero or "0") near3 (V or Volt\$3)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:14
S70	1	S68 S69	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:15
S71	48	(detect or sense) near3 (position or location or point) S68	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:17

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	30378	((mov\$3 or shift\$3 or chang\$3) with ((zero or "0") near3 (potential or volt\$3 or cross\$3)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:15
L2	383799	(touch\$1pad or touch\$1screen or (touch near2 (pad or display or sensor or tablet or screen)) or digitizer or tablet)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:14
L3	595	1 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:14
L4	25406	"178"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:14
L5	87173	"345"/\$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:15
L6	111046	4 or 5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:15
L7	70	3 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:15

## EAST Search History

L8	2630	((mov\$3 or shift\$3 or chang\$3) with position with ((zero or "0") near3 (potential or volt\$3 or cross\$3)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:16
L9	2843	((mov\$3 or shift\$3 or chang\$3) with (position or location) with ((zero or "0") near3 (potential or volt\$3 or cross\$3)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:35
L10	49	2 9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:32
L11	15	6 10	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:32
L12	14	((back forth) with (position or location) with ((zero or "0") near3 (potential or volt\$3 or cross\$3)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:39
L13	483	((back) with (position or location) with ((zero or "0") near3 (potential or volt\$3 or cross\$3)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:39
L14	5	2 13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:37

## EAST Search History

L15	21	((back forth) with (position or location) with ((zero or "0") near3 (potential or volt\$3 or cross\$3 or signal)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:41
L16	105	((back forth) with (position or location) with ((zero or "0") with (potential or volt\$3 or cross\$3 or signal)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:42
L17	2	2 16	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/03 09:41
S2	876	178/18.01.ccls.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 10:23
S3	2050797	(position or location or place or spot or point) near5 (detect\$3 or sens\$3 or find\$3 or determin\$5 or locat\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:54
S4	98272	(touch\$3 or sens\$3) near3 (screen or pad or window)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 15:08
S5	11324	S3 same S4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:38
S6	142	S2 S5	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:56
S7	3	(zero near3 volt\$4) S6	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:54

## EAST Search History

S8	3	(wave\$1form near3 generat\$3) S6	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:53
S9	3254	resist\$3 S5	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:47
S10	91	S2 S9	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:53
S11	3	S4 S8	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:53
S12	1029	(wave\$1form near3 generat\$3) S4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:54
S13	45579	(zero near3 volt\$4) same (detect\$3 or sens\$3 or find\$3 or determin\$5 or locat\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 14:33
S14	62	S12 S13	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:55
S15	131528	(touch\$3 or sens\$3) near3 (screen or pad or window or panel)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:19
S16	15402	S3 same S15	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 14:58
S19	189	S2 S16	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:19

## EAST Search History

S20	4	S13 S19	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:08
S21	2	"20050179669" A1	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:08
S22	88666	(zero near3 voltage)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:12
S23	1495	(zero near3 voltage near3 position)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:12
S24	4	S19 S22	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:13
S25	8856	((touch\$3 or sens\$3) near3 (screen or pad or window or panel)) with pen	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:05
S27	121	S12 S25	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:21
S28	42	S25 same (DAC or (digital near3 analog near2 converter))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:50
S29	47	S25 same (DAC or D/A or (digital near3 analog near2 converter))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 15:50
S30	5321	S3 S25	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 16:03

## EAST Search History

S31	97	S30 S22	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 16:03
S32	18	S2 (square near2 wave)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 16:48
S33	36	("3875331").URPN.	USPAT	AND	ON	2007/02/01 16:35
S34	30	S2 (envelope)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/01 16:48
S35	489	((Position or location or point or coordinate) near3 (detect\$4 or find\$3 or locat\$4 or determin\$6)) with (touch near3 pad)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 10:09
S36	1951	((Position or location or point or coordinate) near3 (detect\$4 or find\$3 or locat\$4 or determin\$6)) with (touch near3 (pad or screen))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:57
S37	367	178/18.05.ccls.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 10:12
S38	876	178/18.01.ccls.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 15:48
S39	1188	S37 or S38	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 10:17
S40	3460	345/173-174.ccls.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 10:18

## EAST Search History

S41	4253	S39 or S40	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 15:06
S42	141	(zero near3 volt\$4) S41	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 10:24
S43	0	(envelope enar3 detect\$3) S41	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 10:42
S44	54	(X+ and X-) S41	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:07
S45	2050797	(position or location or place or spot or point) near5 (detect\$3 or sens\$3 or find\$3 or determin\$5 or locat\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:05
S46	8856	((touch\$3 or sens\$3) near3 (screen or pad or window or panel)) with pen	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:05
S47	5321	S45 S46	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:06
S48	525	S41 S47	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:06
S49	17	(X+ and X-) S48	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:07
S50	0	(wavefrom near3 generat\$3) S48	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:16



## EAST Search History

S51	19	(waveform near3 generat\$3) S39	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:21
S52	208	((input or sens\$3) near3 signal) same filter S45 S46	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:26
S53	106	(resistive near3 (touchscreen or pad or (touch near3 pad))) S41	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:27
S54	63464	zero near volt\$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 15:04
S55	100	S54 S47	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 14:59
S56	98	S54 S47 (tim\$3)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 15:00
S57	4750	(zero near volt\$4) with detect\$3	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 15:04
S58	4	S57 S41	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 15:04
S59	199	(touch near3 (panel or pad)) with (pen or stylus) same ((input or sens\$3) near3 signal)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 15:22
S60	53	S59 S41	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/02 15:11

## EAST Search History

S72	20	(x+ and x-) S62	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:22
S73	1188	(178/18.01,18.05).CCLS.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2007/02/05 13:22
S74	4425	(345/175,173,179).CCLS.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2007/02/05 13:23
S75	5194	S73 or S74	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/07 09:39
S77	10922	(touchpad or touchscreen or (touch near2 (pad or screen or window))) with (pen or stylus)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:28
S78	888	S75 S77	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:26
S79	0	(touchpad or touchscreen or (touch near2 (pad or screen or window))) with (sensing with3 (pen or stylus))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:29
S81	41	(touchpad or touchscreen or (touch near2 (pad or screen or window))) with (sensing near3 (pen or stylus))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:31
S82	183	(touchpad or touchscreen or (touch near2 (pad or screen or window))) with (sens\$3 near3 (pen or stylus))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:32
S83	66	S78 S82	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:51

## EAST Search History

S84	223	S67 same (input near3 signal)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 13:52
S85	10774	(position near3 (detect\$3 or determin\$3 or sens\$3 or locat\$3)) same (pen or stylus)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 14:32
S86	45583	(zero near3 volt\$4) same (detect\$3 or sens\$3 or find\$3 or determin\$5 or locat\$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 14:33
S87	1807	"345" S86	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 14:34
S88	10774	S85	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 14:34
S89	261	S85 S86	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 10:52
S90	42	"4055726"	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/05 15:18
S91	30	("4055726").URPN.	USPAT	AND	ON	2007/02/05 15:42
S92	6	("3342935"   "3509559"   "3588345").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2007/02/05 15:46
S93	2	"20050179669" A1	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 09:41

## EAST Search History

S94	22	(US-20030122789-\$ or US-20050001811-\$ or US-20050046621-\$ or US-20040056849-\$).did. or (US-6417845-\$ or US-5621437-\$ or US-5283556-\$ or US-6043810-\$ or US-4205199-\$ or US-5898136-\$ or US-5841078-\$ or US-5231381-\$ or US-5113041-\$ or US-4698460-\$ or US-3875331-\$ or US-3886311-\$ or US-4577058-\$ or US-4600807-\$ or US-4650926-\$ or US-4678869-\$ or US-4055726-\$).did. or (US-3530437-\$).did.	US-PGPUB; USPAT; USOCR	AND	ON	2007/02/06 16:18
S95	3	envelope S94	US-PGPUB; USPAT; USOCR	AND	ON	2007/02/06 10:22
S96	30	178/18.01.ccls. envelope	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 10:23
S97	332	((Sens\$3 or detect\$3) near3 (probe or pen)) same (zero near3 (volt\$4 or Cross\$3))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 11:29
S98	18	((Sens\$3 or detect\$3) near3 (probe or pen)) same (zero near3 (volt\$4 or Cross\$3)) same envelope	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 11:23
S99	29	((Sens\$3 or detect\$3) near3 (probe or pen)) same (zero near3 (volt\$4 or Cross\$3)) same filter	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 11:30
S10 0	0	touchpad same evenlope	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 15:07
S10 1	363	((touch\$3 or sens\$3) near3 (screen or pad or window)) same envelope	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 15:08

## EAST Search History

S10 2	25	((touch\$3 or sens\$3) near3 (screen or pad or window)) same (envelope near3 detect\$3)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 15:10
S10 3	20	stylus same (envelope near3 detector)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/06 15:10
S10 4	23	(US-20030122789-\$ or US-20050001811-\$ or US-20050046621-\$ or US-20040056849-\$).did. or (US-6417845-\$ or US-5621437-\$ or US-5283556-\$ or US-6043810-\$ or US-4205199-\$ or US-5898136-\$ or US-5841078-\$ or US-5231381-\$ or US-5113041-\$ or US-4698460-\$ or US-3875331-\$ or US-3886311-\$ or US-4577058-\$ or US-4600807-\$ or US-4650926-\$ or US-4678869-\$ or US-4055726-\$).did. or (US-3530437-\$).did.	US-PGPUB; USPAT; USOCR	AND	ON	2007/02/06 16:18
S10 5	2	Multiplex S104	US-PGPUB; USPAT; USOCR	AND	ON	2007/02/06 16:33
S10 6	3	DAC S104	US-PGPUB; USPAT; USOCR	AND	ON	2007/02/06 16:33
S10 7	3058	(tablet or pad or screen) same (zero\$1cross\$3 or (zero near3 volt\$3))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/07 09:37
S10 8	1185	(tablet or pad or screen) same ((zero\$1cross\$3 or (zero near3 volt\$3)) same (mov\$3 or change))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/07 09:37
S10 9	1188	(178/18.01,18.05).CCLS.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2007/02/07 09:39
S11 0	4430	(345/175,173,179).CCLS.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2007/02/07 09:39

## EAST Search History

S11 1	5199	S109 or S110	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/07 09:39
S11 2	34	S111 S107	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/07 09:40
S11 3	8	S111 S108	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/07 09:40
S11 4	1	(touch pad detecting circuit input signal zero voltage envelope detector filter waveform generator position).clm.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/02/09 20:36
S11 5	156340	(zero near3 (voltage or cross\$4 or potential)) or zero\$1cross\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/02 13:46
S11 6	418	(touch near3 (panel or pad or window or screen)) with (pen or stylus) same ((input or sens\$3) near3 signal)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/08/02 13:41
S11 7	7	S116 S115	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2007/08/02 13:46
S11 8	86297	detect\$4 S115	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/02 13:46
S11 9	18810	detect\$4 near3 S115	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/02 13:47

## EAST Search History

S12 0	104171	touch\$1screen or touch\$1pad or (touch near3 (tablet or window or display or pad or screen or monitor)) or touch\$1tablet	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/02 13:48
S12 1	233	S119 S120	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/08/02 13:48